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ABSTRACT

This study examines (1) the financial consequences of pursuing teaching as a profession in Oregon and (2) the progression of teachers' salaries at three levels of public education (elementary-secondary, community college, and university) over the period 1976-77 through 1985-86. A longitudinal research design focused on two cohorts of teachers: beginning and experienced. The study revealed that both beginning and experienced elementary and secondary school cohorts began their teaching careers with a lower salary than community college and state system university teachers. University teachers' beginning salaries were higher than those of teachers in community colleges. Ten-year progressions for teachers' salaries differed at the three different levels. Elementary and secondary teachers in the beginning and experienced cohorts received salary increases above the rate of inflation. Community college teachers in the beginning cohort received salary increases above the rate of inflation, whereas experienced teachers did not. State System of Higher Education teachers in both beginning and experienced cohorts did not receive salary increases that kept pace with the rate of inflation. Contains eight figures, seven tables, five bibliographic entries, and four appendices. (IW)

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# Teachers' Salaries in Oregon: A Longitudinal Study of Oregon Public Schools, Community Colleges, and the State System of Higher Education from 1976-77 through 1985-86

Gerald K. Bogen, Project Director
Blair M. T. Odo, Jon W. Rivenburg,
and Patrick J. O'Connor, Project Researchers

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Division of Educational Policy and Management

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December 1986

## ABOUT THE PROJECT DIRECTOR

Dr. Gerald K. Bogen is Professor of Higher Education with the Division of Educational Policy and Management. He is also a coauthor of the previous study "Teacher Salaries in Oregon: A Longitudinal Study of Salaries of Teachers in the Oregon Public Schools, Community Colleges, and the State System of Higher Education from 1971/72 through 1981/82."

## ABOUT THE PROJECT RESEARCHERS

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## INTRODUCTION

In recent years, teachers and young people considering teaching as a profession have become increasingly dubious about the financial rewards of the teaching profession. Their doubts have no doubt exacerbated the present teacher shortage that troubles students, educators, and society.

In Oregon, no less than elsewhere in the U.S., the ranges of incomes and the potential for lifetime earnings have influenced many current teachers to leave the profession and potential ones to forego it. According to human capital theory, an increased investment in educational training should result in increased earnings (see Becker in Cohn, 1979). Some teachers believe that their salaries do not adequately compensate them for additional education. Recent research, such as that of Willis D. Hawley, in "Toward a Comprehensive Strategy for Addressing the Teacher Shortage" (1986), supports the contention that inadequate compensation is leading teachers away from education.

A crisis looms. Hawley (1986, p. 712) says that "both the number and the proportion of college students preparing to teach have declined precipitously in recent years, while a disproportionate number of teachers are leaving the profession." For the teaching professions to attract the best and brightest, compensation should be commensurate with the extensive preparation required, personal energy expended, and commitment to the exacting goals of the profession.

Although many teachers put value on the intrinsic rewards of their profession, the income potential is also important to them. Arthur E. Wise, in "Three Scenarios for the Future of Teaching" (1986), says:

> Salaries and working conditions will be more important determinants of teacher supply and quality in the future than they have been in the past. Public education can no longer lay claim to a captive labor force of women and minorities who are denied other opportunities (p. 650).

Public elementary and secondary schools, community colleges, and colleges and universities must compete for limited funds. Educational and political decision-makers often debate over their constituencies' shares. A major part of funding for education always goes to teacher salaries. It is important, therefore, that the money invested attract an adequate supply of good teachers and keep them for a longer period than they stay at present.

A previous study of teachers' salaries attracted interest throughout the state of Oregon; namely, "Teacher Salaries in

Oregon: A Longitudinal Study of Salaries of Teachers in Oregon Public Schools, Community Colleges and the State System of Higher Education from 1971-72 through 1981-82" by Gerald K. Bogen, Thomas J. Gavin, and Jon W. Rivenburg (1983). That study documented salary patterns in various public education sectors. The study followed the same people for eleven years, from 1971-72 through 1981-82. It was limited, however, to examining beginning teachers.

Using that study's same methodology, this study provides a composite picture of teachers' salaries for beginning and experienced cohorts at the three levels in the State public educational system. We give salary data on selected educators, paying particular attention to their salary progression over a ten-year period. We do not identify individuals here, nor do we express judgments about differences in the preparation or the work expected. Neither do we compare the teaching profession with other professions requiring similar preparation and work, though such a comparison would no doubt confirm the seriousness of the salary deficit in the teaching profession. For example, Hawley (1986) maintains that one important reason such a low proportion of college graduates are preparing for teaching careers is that reductions in the relative earning power of teachers has dissuaded many potential teachers from entering the field. Here, however, we simply show the salary progression for each of the three levels of teaching: elementary-secondary, community college, and teachers in the State System of Higher Education (excluding the Oregon Health Sciences University).

In brief, this study 1) examines the financial consequences of pursuing teaching as a profession at each level of schooling in Oregon and (2) describes the progression of teachers' salaries at the three levels over the last ten years in two selected cohorts of teachers.

## METHODOLOGY

To gain a multi-year perspective, to track individual teachers' salary experience, and to avoid temporary salary fluctuations inherent in each educational sector, we used a longitudinal research design. We selected two cohorts of teachers from elementary and secondary schools, community colleges, and the State System of Higher Education: (1) a "beginning" cohort of teachers in each of the three educational sectors who began their teaching careers in Fall 1974, 1975, or 1976 and (2) an "experienced" cohort of teachers who had been employed in an educational sector for a minimum of twenty years by the Fall of 1985.

The cohorts of beginning and experienced teachers provide data for a comprehensive view of a beginning and an experienced teacher's salary experience in each educational sector for the period 1976-77 through 1985-86. To be included in the sample, the teachers had to have remained in the same school district or

institution from the beginning of their careers or for the last twenty years until the end of the 1985-86 school year. This restriction allowed us to examine educators on a similar track in their respective sectors. The data therefore provide critical information about the financial consequences for individual teachers pursuing or continuing a teaching career in each sector. In particular, this study documents the salary experience of those individuals likely to have the highest percentage salary growth--the beginning cohort--and those likely to "top out" in salary remuneration--the experienced cohort.

To be included in the study, teachers were also screened for "discipline comparability." This control was introduced to ensure that the data would not be biased by salaries for disciplines specific to one educational sector. Consequently, classroom teachers from each sector were included in this study if they taught subjects similar to subjects in other sectors. From elementary schools, teachers in self-contained classrooms were included, since their disciplines are taught in the other two sectors (e.g., history, English, sciences, music, etc.). Persons who taught subjects not offered at all levels were excluded. Thus, in the State System of Higher Education, persons were excluded if they taught such subjects as law, medicine, nursing, or architecture. Community college teachers were not included in the study if they taught subjects such as welding, secretarial science, or fire protection. Similarly, elementary and secondary school teachers who taught subjects such as industrial arts, traffic safety, or other specialties were excluded from the study. Administrators, counselors, librarians, and other professional support personnel were also excluded. Appendix A lists disciplines included and excluded.

Data from the State Department of Education were used to select elementary and secondary teachers who fit the criteria mentioned above. Community colleges were asked to identify similar teachers who began teaching at their institutions in the appropriate years. Data from the State System of Higher Education were used to find teachers for the higher education sector.

Ease of access to pertinent information varied among sectors. Data files from the State Department of Education provided necessary information about the teachers in each cohort who work in elementary and secondary schools, but similar data were not available longitudinally for the other two sectors. Therefore, it was necessary to contact administrators at each institution to obtain and confirm information about date of initial appointment, department, previous full-time teaching experience, educational preparation, percentage of full-time employment (FTE), and budgeted annual rate of pay for each academic year from the Fall of 1974, 1975, or 1976.

For both the beginning cohort--those teachers beginning teaching in 1974, 1975, or 1976 with no more than three years of prior teaching experience--and the experienced cohort--those teachers hired by the district or institution in either 1964, 1965, or 1966, salaries were tabulated beginning in the Fall of

1976. These data provided the salary history for a ten-year period. The beginning cohort had been with their district or institution at least ten years by 1985-86, and the experienced cohort had been with their district or institution at least twenty years by that time. The reason for including three years of beginning dates in each cohort was to obtain a larger group for each educational sector. An analysis of variance confirmed the appropriateness of that data aggregation.[1]

After collecting data about each of the individuals, further screening ensured that individuals from each sector qualified for the sample desired. All persons in the beginning cohort having more than three years of full-time experience before their year of beginning employment in the district were excluded. Doing that made it likely that yearly salary increases were due to years in the organization and not to prior experience. Minimizing prior experience also prevented "topping out" on the salary schedule, thereby capturing in the beginning cohort the fastest possible salary growth for each teacher in each sector.

In the experienced cohort, prior teaching experience was of course what we wanted. Teachers in this cohort were hired in 1964, 1965, or 1966 and therefore had at least ten years of teaching experience by the end of the 1975-76 academic year. Prior teaching experience was controlled for in the experienced cohort only by the initial inclusion criteria.

In both beginning and experienced cohorts, all persons who worked less than full-time for three or more years after 1974, 1975, or 1976 were not included. We believed that such individuals would likely have salary patterns divergent from others included in the sample.

A random sample of 50 teachers was selected from each of the six years of hire for the beginning and experienced cohorts of the elementary and secondary school sector. The use of the

Table 1: Numbers of Teachers by Sector and Cohort

| | Beginning Cohort: Hired 1974, 1975, or 1976 | Experienced Cohort: Hired 1964, 1965, or 1966 |
|---|---|---|
| Elementary and Secondary | 121 | 115 |
| Community College | 41 | 52 |
| State System of Higher Ed. | 44 | 123 |
| TOTAL | 206 | 290 |

[1] It is to be noted that 41 percent of the beginning cohort of community college teachers were from one community college. Analysis confirmed the salaries of these individuals did not differ meaningfully from the salaries of teachers in the cohort from other community colleges.

screening criteria reduced the cohorts in each sector to the samples shown in Table 1.

We must caution that although our refined samples of beginning and experienced teachers are appropriate to this study, our results might not describe all Oregon teachers. The results could fail to describe well teachers of the kinds we screened out of our study—those with considerable prior experience elsewhere, those teaching subjects not taught in all other sectors, and so on.

The beginning cohort totals 206 individuals. It includes teachers from elementary and secondary schools in 23 of the 36 counties, 11 of the 13 community colleges, and 6 of the 8 institutions within the Oregon State System of Higher Education. The experienced cohort totals 290 individuals and includes teachers from elementary and secondary schools from 26 of the 36 counties, 9 of the 10 community colleges in existence by 1966, and 6 of the 8 institutions within the Oregon State System of Higher Education. Appendix B displays the distribution of the cohorts by institution for the community colleges and the State System.

The teachers' workloads were not analyzed. Each educational sector defines those duties and responsibilities required for a "full-time" employee. We accepted each educational sector's definition of what constituted full-time work and included only full-time teachers in the study.

To examine the financial consequences of pursuing a teaching career, we limited salary study to the annual rate of pay for the academic year. We did not include, therefore, overload payments, summer pay, administrative stipends, and Public Employees Retirement System (PERS) contributions and payments. Also, we did not include fringe benefits, although a component of total compensation, because of the significant variations among the educational sectors.

## CHARACTERISTICS OF TEACHER COHORTS

Salary schedules in the elementary and secondary school and community college sectors are generally based on experience and training. These factors influence not only initial placement on the salary schedule but also advancement. Increases also occur when the entire salary schedule is adjusted for inflation.

Salary schedules do not exist in the State System of Higher Education. Initial rank is based on experience and training. Salary increases are based on a variety of factors including equity, merit, and adjustments for inflation. The proportion of salary funds allocated to those three categories varies by institution and from one year to another. Salary increases also usually accompany promotion from one rank to the next.

To ensure that teachers in the beginning cohort would differ little in their prior teaching experience, we excluded, as we mentioned before, persons who had more than three years of teaching experience when they were hired. Table 2 shows that

Table 2: Percentages of Teachers in the Three Sectors within the Beginning Cohort and their Years of Prior Teaching Experience

| Years of Prior Teaching Experience on Date Hired | Elementary & Secondary (percent) | Community College (percent) | State System of Higher Education (percent) |
|---|---|---|---|
| 0 | 21 | 71 | 68 |
| 1 | 31 | 7 | 16 |
| 2 | 31 | 10 | 5 |
| 3 | 17 | 12 | 11 |
| Total | 100 | 100 | 100 |
| Median Years of Prior Teaching Experience on Date Hired | 1 | 0 | 0 |
| | N=121 | N=41 | N=44 |

more than half of the teachers in each sector of the beginning cohort began teaching in districts or institutions in which they

Table 3: Percentages of Teachers in the Three Sectors within the Beginning Cohort and their Educational Preparation

| Degree | Elementary & Secondary | | Community College | | State System of Higher Education | |
|---|---|---|---|---|---|---|
| | 70s | 1985 | 70s | 1985 | 70s | 1985 |
| | (percent) | | (percent) | | (percent) | |
| No Degree | 0 | 0 | 4 | 4 | 0 | 0 |
| Bachelor's | 62 | 11 | 15 | 13 | 0 | 0 |
| Bachelor's + hours | 18 | 48 | 0 | 0 | 0 | 0 |
| Master's | 20 | 41 | 76 | 76 | 20 | 14 |
| Doctorate | 0 | 0 | 5 | 7 | 80 | 86 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| | N=121 | | N=41 | | N=44 | |

stayed during the period of this study with no more than one year

of prior teaching experience.

Table 3 shows that teachers in the beginning cohort did differ in educational preparation. In the year of hire, 62 percent of the elementary and secondary teachers had completed no work beyond a bachelor's degree, 76 percent of the community college teachers had completed a master's degree, and 80 percent of the State System of Higher Education sample had completed a doctorate. The proportion of elementary and secondary school teachers who had completed additional hours, including the master's degree, increased from 38 percent in the year of hire to 89 percent in 1985. During the same time period the percentage of community college teachers with a master's degree did not increase, although those possessing a doctorate increased by 2 percent. The proportion of State System teachers with doctorates increased from 80 percent in the year of hire to 86 percent in 1985. Also, all of the State System teachers in the beginning cohort received at least one promotion and all were granted tenure. Six of them received successive promotions from assistant to full professor during the ten years.

We now turn to the experienced cohort. Table 4 shows that in every sector, 94 percent or more of the experienced cohort had between zero and ten years of prior teaching experience on the date they were hired. The differences in prior teaching experience among sectors are minimal.

Table 4: Percentages of Teachers in the Three Sectors within the Experienced Cohort and their Years of Prior Teaching Experience

| Years of Prior Teaching Experience on Date Hired | Elementary & Secondary (percent) | Community College (percent) | State System of Higher Education (percent) |
|---|---|---|---|
| 0-5 | 70 | 90 | 80 |
| 6-10 | 25 | 10 | 14 |
| 11-15 | 5 | 0 | 6 |
| 16-20 | 0 | 0 | 0 |
| Total | 100 | 100 | 100 |
| Median Years of Prior Teaching Experience on Date Hired | 3 | 0 | 1 |
| | N=115 | N=52 | N=123 |

In contrast, the experienced cohort showed expected

differences among sectors in degree attainment during the twenty years from the 1960s' date of hire to Fall 1985. Table 5 shows that at the date of hire, 54 percent of elementary and secondary teachers possessed a bachelor's degree or bachelor's plus-hours. By 1985, 4 percent of that group had achieved a master's degree. Eighty-nine percent of community college teachers had received a master's or doctorate by the date of hiring in the 1960s, and 98 percent by 1985. All of the State System members of the experienced cohort had master's degrees or doctorates throughout the ten years. Many of them were promoted from assistant, to associate, to full professor during that period.

Table 5: Percentages of Teachers in the Three Sectors within the Experienced Cohort and their Educational Preparation

| | Elementary & Secondary | | Community College | | State System of Higher Education | |
|---|---|---|---|---|---|---|
| | 60s | 1985 | 60s | 1985 | 60s | 1985 |
| | (percent) | | (percent) | | (percent) | |
| Bachelor's | 16 | 0 | 11 | 2 | 0 | 0 |
| Bachelor's + hours | 38 | 50 | 0 | 0 | 0 | 0 |
| Master's | 46 | 50 | 87 | 88 | 13 | 13 |
| Doctorate | 0 | 0 | 2 | 10 | 87 | 87 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| | N=115 | | N=52 | | N=123 | |

## FINDINGS

### Beginning Cohort

As can be seen by Figure 1, the 1976-77 median salary in the beginning cohort was $11,389 for elementary and secondary teachers, $13,753 for community college teachers, and $14,500 for State System of Higher Education teachers.[2] In 1985-86, the median salary for elementary and secondary school teachers in Oregon in the beginning cohort was $25,655, an increase of $14,266 in the median salary over the ten years. The median salary for Oregon's community college teachers in 1985-86 was

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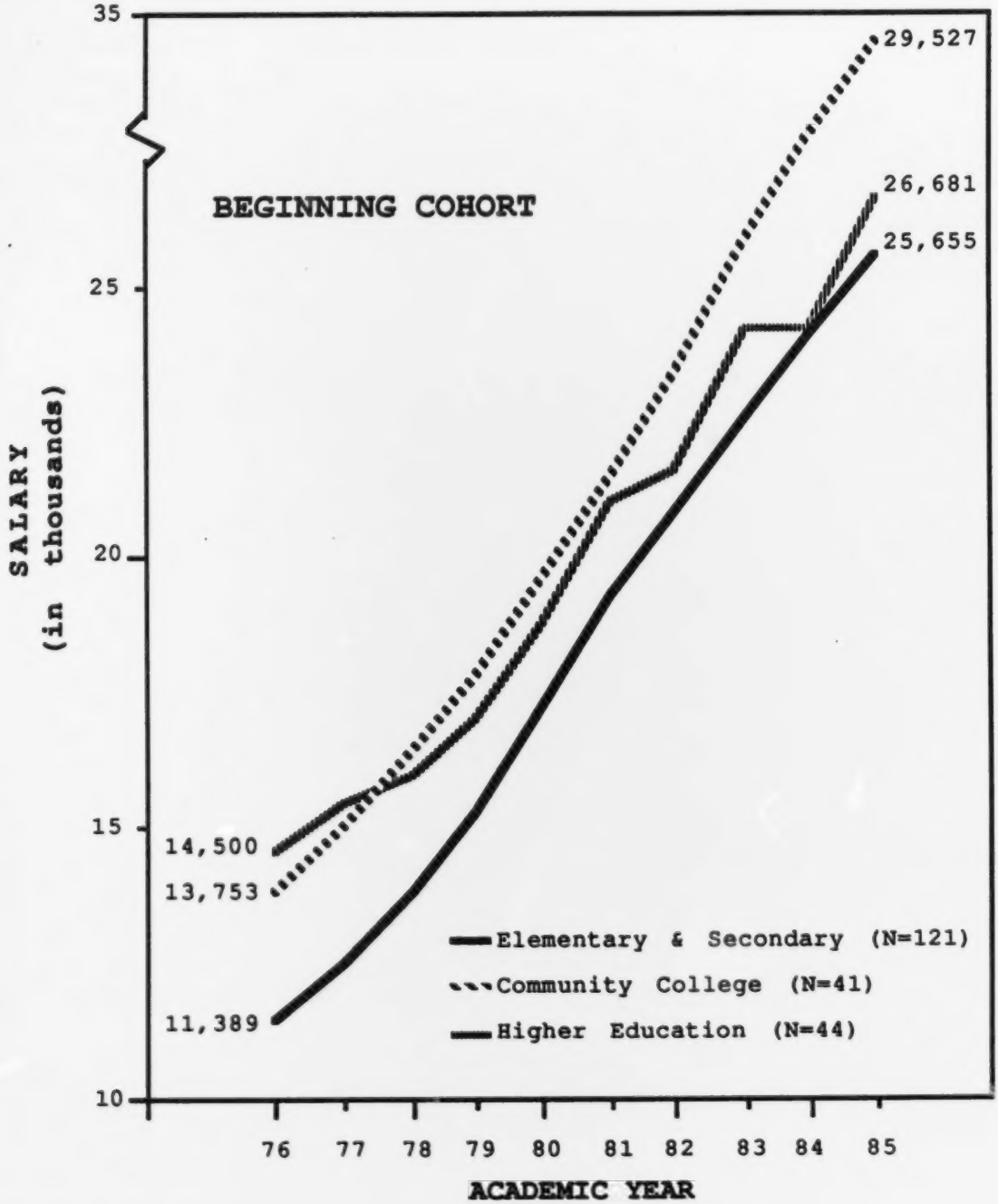
[2] The median divides each sector in half, with 50 percent of the individuals above and 50 percent of the individuals below the reported figure. The median is not distorted by extremes of maximum and minimum salaries.

FIGURE 1

**MEDIAN SALARIES OF OREGON TEACHERS**
**By Sector 1976-77 to 1985-86**



$29,527, an increase of $15,744 over the 1976-77 median salary. Teachers in the Oregon State System of Higher Education had a median salary in 1985-86 of $26,681, an increase of $12,181.[3]

This study showed that the median salary for the beginning cohort of elementary and secondary teachers was the lowest of the three sectors in 1976-77 and in 1985-86 is still the lowest. The median salary of State System teachers in 1976-77 was $747 more than the median salary of community college teachers. But in 1985-86, the median State System salary was $2,846 less than that of community colleges. That reversal began in 1978-79 and has continued for the last seven years. This finding validates precisely, using a different beginning cohort, the earlier study's finding of community college teachers receiving higher median salaries than State System teachers beginning in 1978-79.[4] Community college teachers in our sample, 87 percent with master's degrees and 2 percent with doctorates, have been paid more during the last seven years than State System teachers, 13 percent with master's degrees and 87 percent with doctorates. Appendix D displays median salaries for the beginning cohorts by sector by year.

The salaries in the beginning cohort teachers have grown significantly in every sector during the ten years of the study. This salary growth is due in part, however, to increases in inflation. Measured by the Consumer Price Index, a 1985 dollar was worth less than a 1976 dollar. The median salaries in Figure 2 show salaries in 1976 constant dollars.

The median salary for elementary and secondary and community college teachers increased in constant dollars. Their purchasing power, therefore, increased. The median salary for State System teachers decreased in constant dollars. Thus, the purchasing power of their median salary eroded. These gains and losses in purchasing power, in constant 1976 dollars, are shown in Table 6.

The annual percentage increase of the median salary for each sector is compared to the Portland Consumer Price Index in Figure 3. The Portland Consumer Price Index is generally accepted to represent the cost of living for the entire state. Median salary increases greater than that of the PCPI are shown as positive differences and increases smaller as negative differences. Since

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[3] Teachers in each sector received various fringe benefits in addition to salary. This study examines only salary, however, because fringe benefit packages are not directly comparable. Also omitted from our salary figures are overload compensation, summer pay, administrative stipends, and Public Employees Retirement System (PERS) contributions.

[4] "Teacher Salaries in Oregon: A Longitudinal Study of Salaries of Teachers in Oregon Public Schools, Community Colleges, and the State System of Higher Education from 1971/72 through 1981/82" by Gerald K. Bogen, Thomas J. Gavin, and Jon W. Rivenburg, p. 9.

FIGURE 2

**MEDIAN SALARIES OF OREGON TEACHERS**
**By Sector 1976-77 to 1985-86**
**in Constant 1976 Dollars**

CPI July 1976 = 100

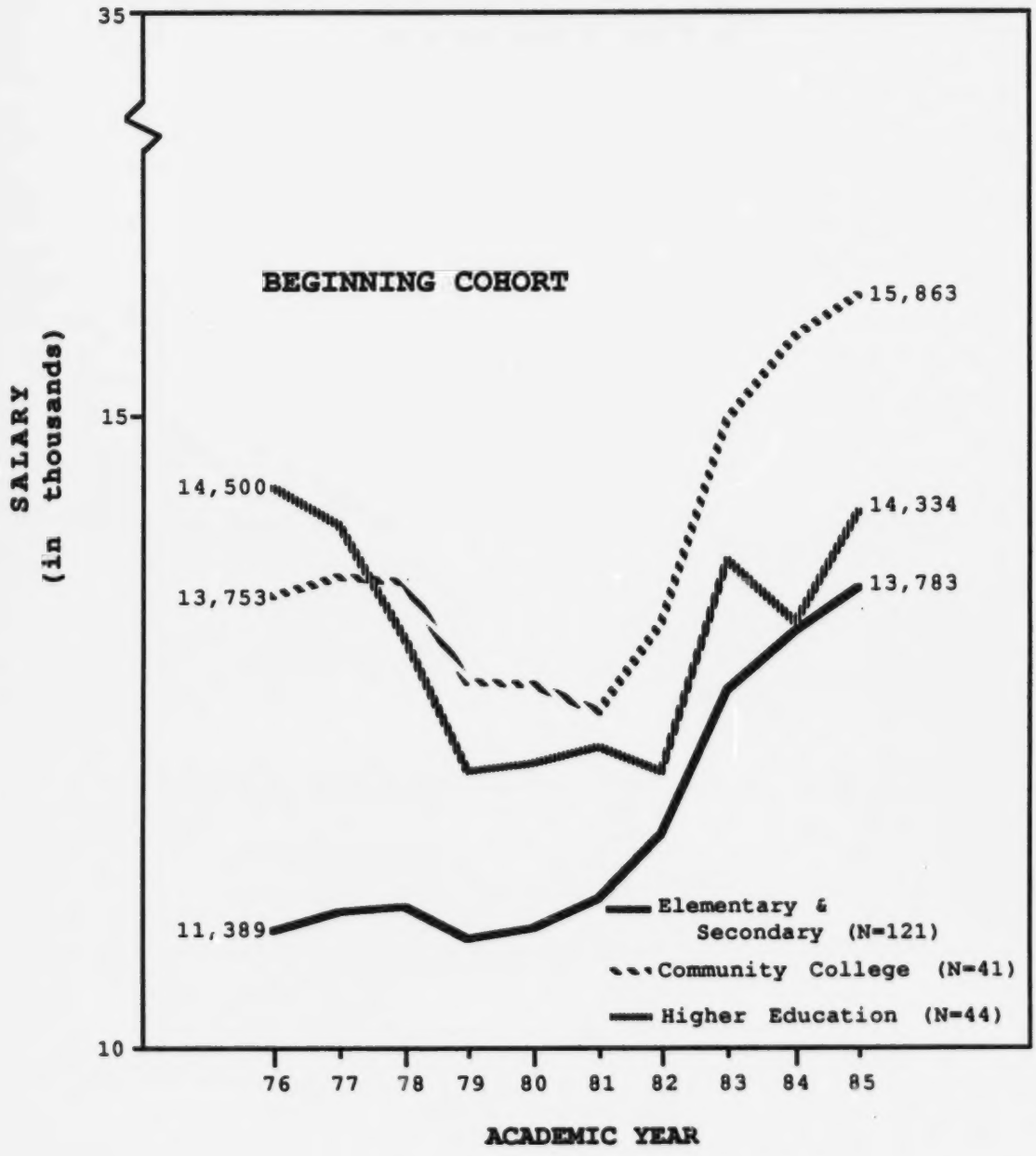

FIGURE 3

DIFFERENCE BETWEEN ANNUAL PERCENTAGE INCREASE OF THE MEDIAN SALARY AND THE CONSUMER PRICE INDEX

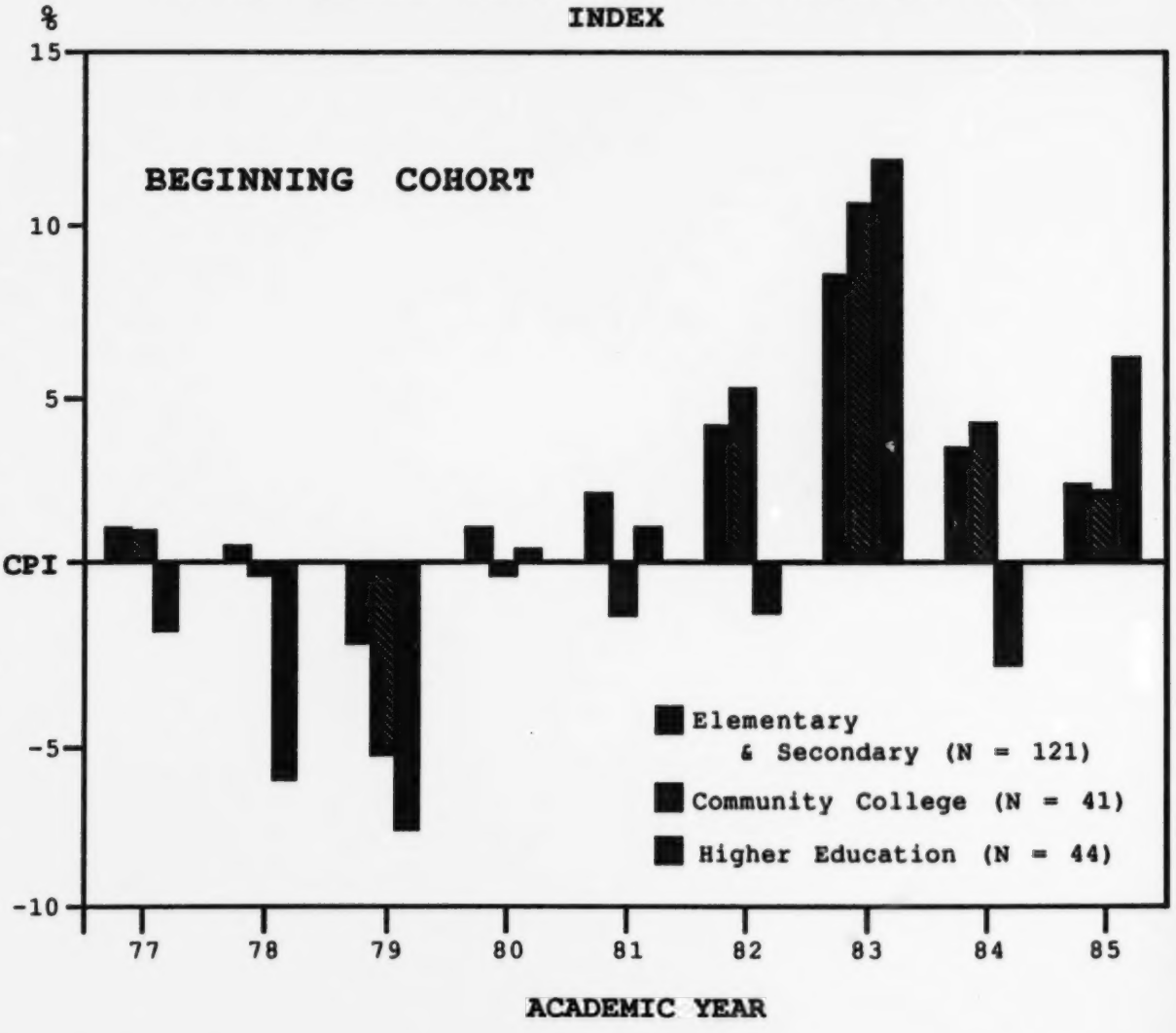

FIGURE 4

**PERCENTAGE INCREASE OF MEDIAN SALARIES OF OREGON TEACHERS AND THE CONSUMER PRICE INDEX FROM 1976-77 to 1985-86**

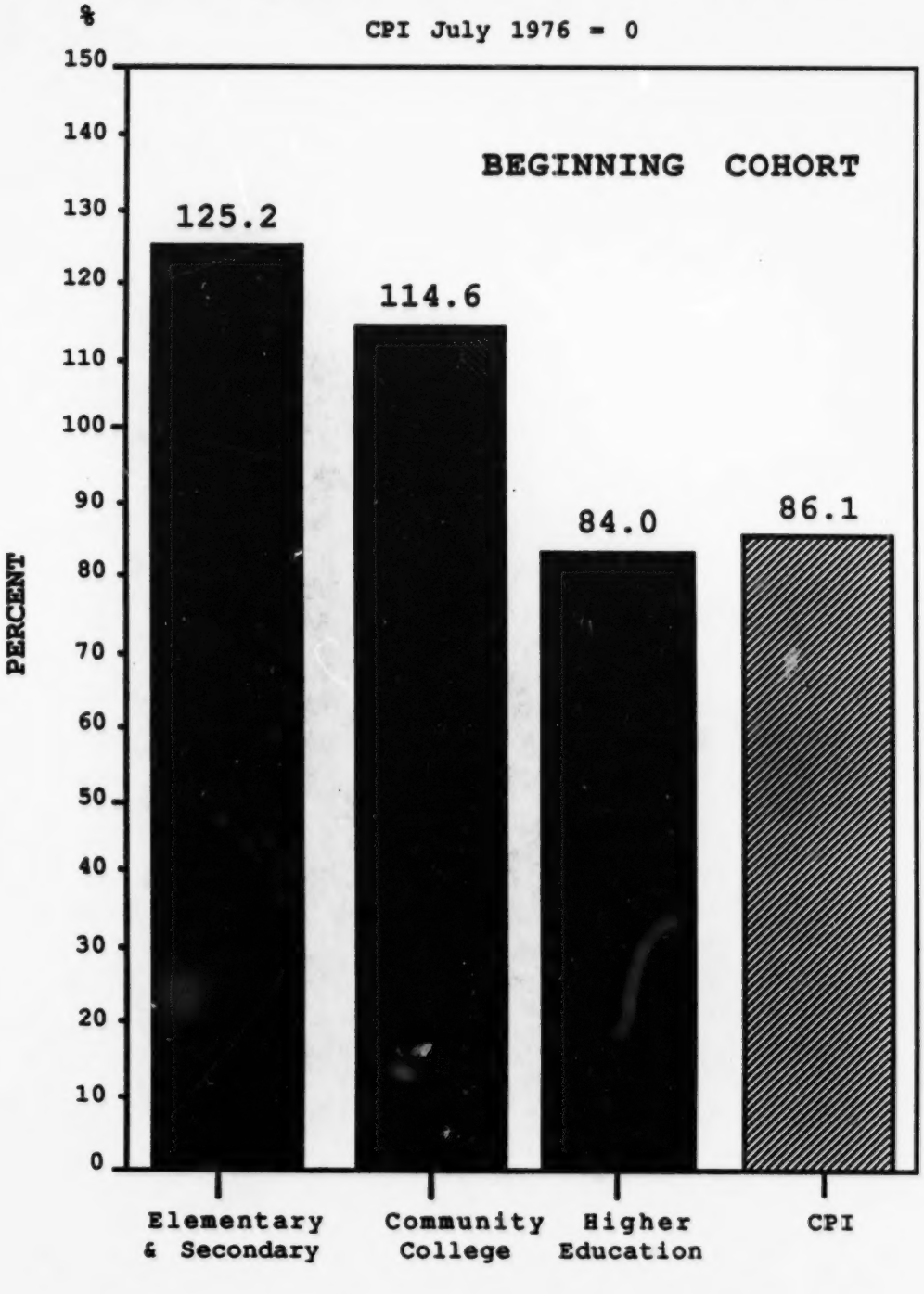

Table 6: Median Salaries of Oregon Teachers in the Beginning Cohort by Sector, with Losses and Gains from 1976-77 to 1985-86, in Constant 1976 Dollars

| | Elementary & Secondary (dollars) | Community College (dollars) | State System of Higher Education (dollars) |
|---|---|---|---|
| 1976-77 Median Salary | 11,389 | 13,753 | 14,500 |
| 1985-86 Median Salary | 13,783 | 15,863 | 14,334 |
| Gain or Loss in Real Income | + 2,474 | + 2,110 | - 166 |
| | N=121 | N=41 | N=44 |

this study follows the same teachers from 1976-77 to 1985-86, only nine annual increases appear in the figure. The median salary increase for elementary and secondary teachers was larger than the increase in the PCPI in eight of the nine years, for community college teachers in five of the nine years, and for State System teachers in four of the nine years.

The annual increases in each sector can be totalled to show how the teachers in the study have done compared to the growth of the PCPI. Figure 4 shows that over the ten years, the growth of the median salary among elementary and secondary teachers exceeded the PCPI by 39.1 percent, and the growth among community college teachers exceeded it by 28.5 percent. Among State System teachers, however, the growth of the median salary fell below the PCPI by 2.1 percent. We also discovered that 93 percent of the elementary and secondary teachers received increases that exceeded the PCPI and 95 percent of the community college teachers received increases that exceeded the PCPI, but only 54 percent of the State System teachers received increases that exceeded the PCPI.

The findings of this study agree with the previous study's findings for a different eleven year period and among different beginning teachers.[5] Both studies found that the median salary among community college teachers overtook that among State System teachers in 1978-79, that real income increased among elementary and secondary teachers, and that real income decreased for State System teachers.

Experienced Cohort

Figure 5 shows the median salaries by sector for the experienced cohort. The median salary in 1976-77 for elementary and secondary teachers in the experienced cohort was $15,365, $18,259 for community college teachers, and $19,346 for State

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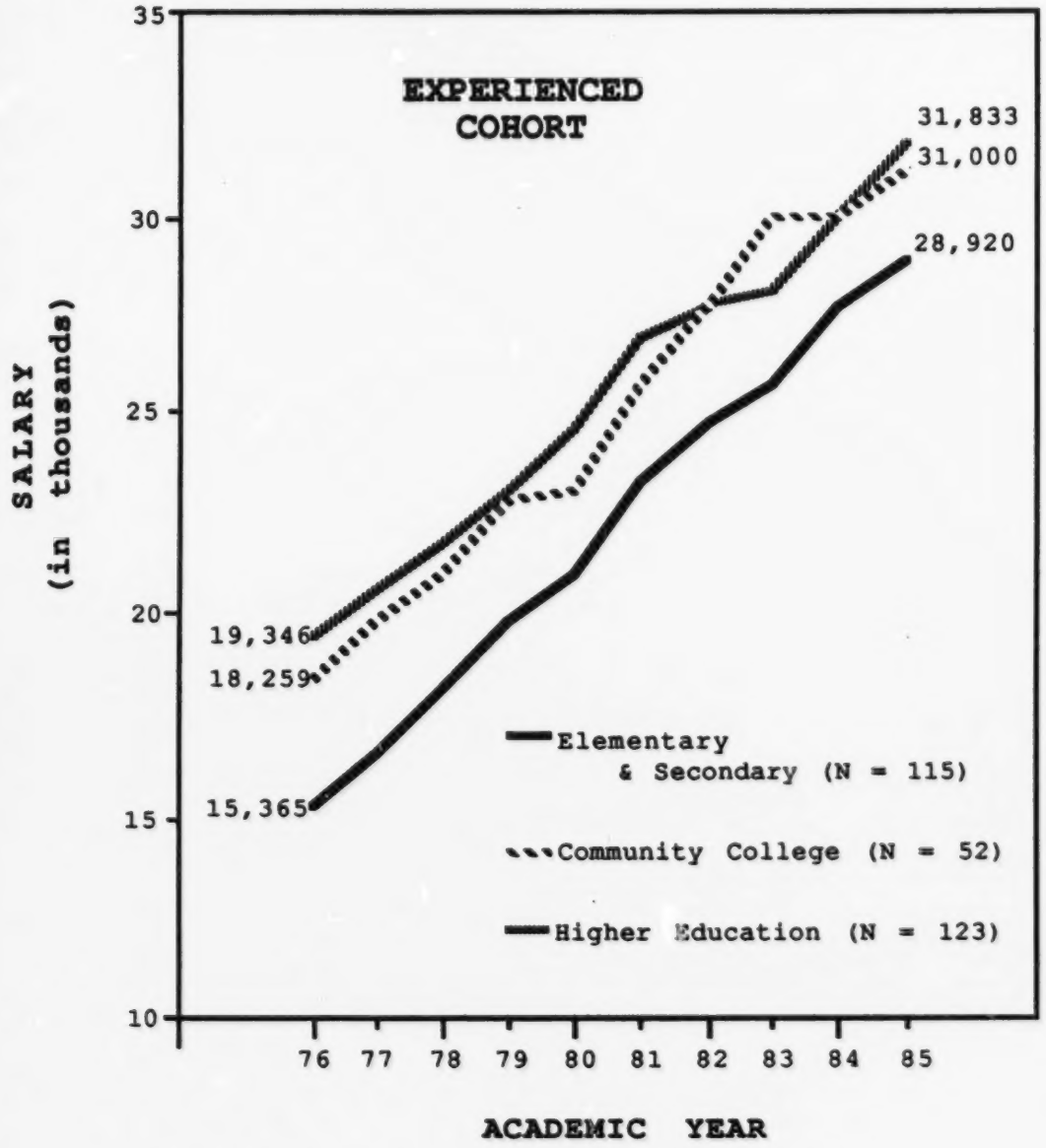
[5] Ibid.

FIGURE 5

**MEDIAN SALARIES OF OREGON TEACHERS**
**By Sector 1976-77 to 1985-86**



System of Higher Education teachers. The experienced cohort had a median salary in 1985-86 of $28,920 in the elementary and secondary, $31,000 in the community college, and $31,833 in the higher education sectors.

The experienced cohort had a median salary increase of $13,555 for elementary and secondary teachers, $12,741 for community college teachers, and $12,487 for State System teachers over the ten years.

The experienced elementary and secondary teachers had the lowest median salary in 1976-77 and it remained lowest in comparison to the other two sectors. The median salary of State System teachers was higher than the median salary of community college teachers for all but two years of the study. Differences in median salaries among the sectors diminished during the ten years. One explanation might be that State System teachers had terminal degrees upon date of hire while the teachers of the other two sectors kept acquiring advanced education for which they were compensated.

When the salaries of the experienced cohort are adjusted for inflation by constant 1976 dollars, elementary and secondary teachers had a small purchasing power increase while community college and State System teachers experienced losses in real dollars and purchasing power. The State System experienced teachers suffered the worst loss in purchasing power. Figure 6 and Table 7 depict these relationships.

Table 7: Median Salaries of Oregon Teachers in the Experienced Cohort by Sector, with Losses and Gains from 1976-77 to 1985-86, in Constant 1976 Dollars

| | Elementary & Secondary (dollars) | Community College (dollars) | State System of Higher Education (dollars) |
|---|---|---|---|
| 1976-77 Median Salary | 15,365 | 18,259 | 19,346 |
| 1985-86 Median Salary | 15,537 | 16,654 | 17,102 |
| Gain or Loss in Real Income | + 172 | - 1,605 | - 2,244 |
| | N=115 | N=52 | N=123 |

The annual percentage increase of the median salary for each sector in comparison to the Portland CPI yielded the results described in Figure 7. The experienced elementary and secondary teachers had median salary increases larger than increases in the PCPI for six of the nine years. The experienced community college teachers had median salary increases larger than increases in the PCPI for four of the nine years. Experienced State System teachers, however, had median salary increases less

FIGURE 6

**MEDIAN SALARIES OF OREGON TEACHERS**
**By Sector 1976-77 to 1985-86**
**in Constant 1976 Dollars**

CPI July 1976 = 100

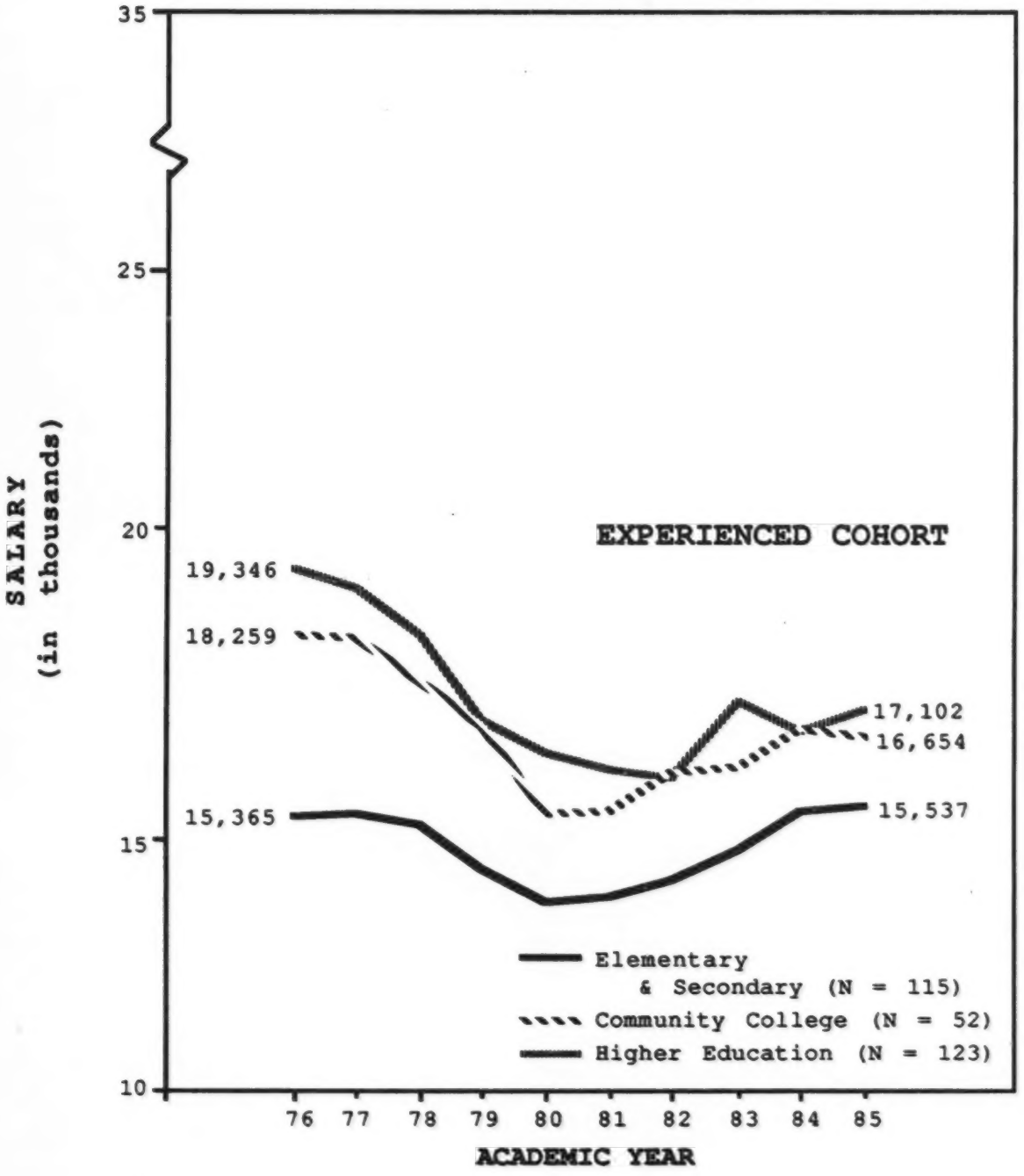


FIGURE 7

**DIFFERENCE BETWEEN ANNUAL PERCENTAGE INCREASE OF THE MEDIAN SALARY AND THE CONSUMER PRICE INDEX**

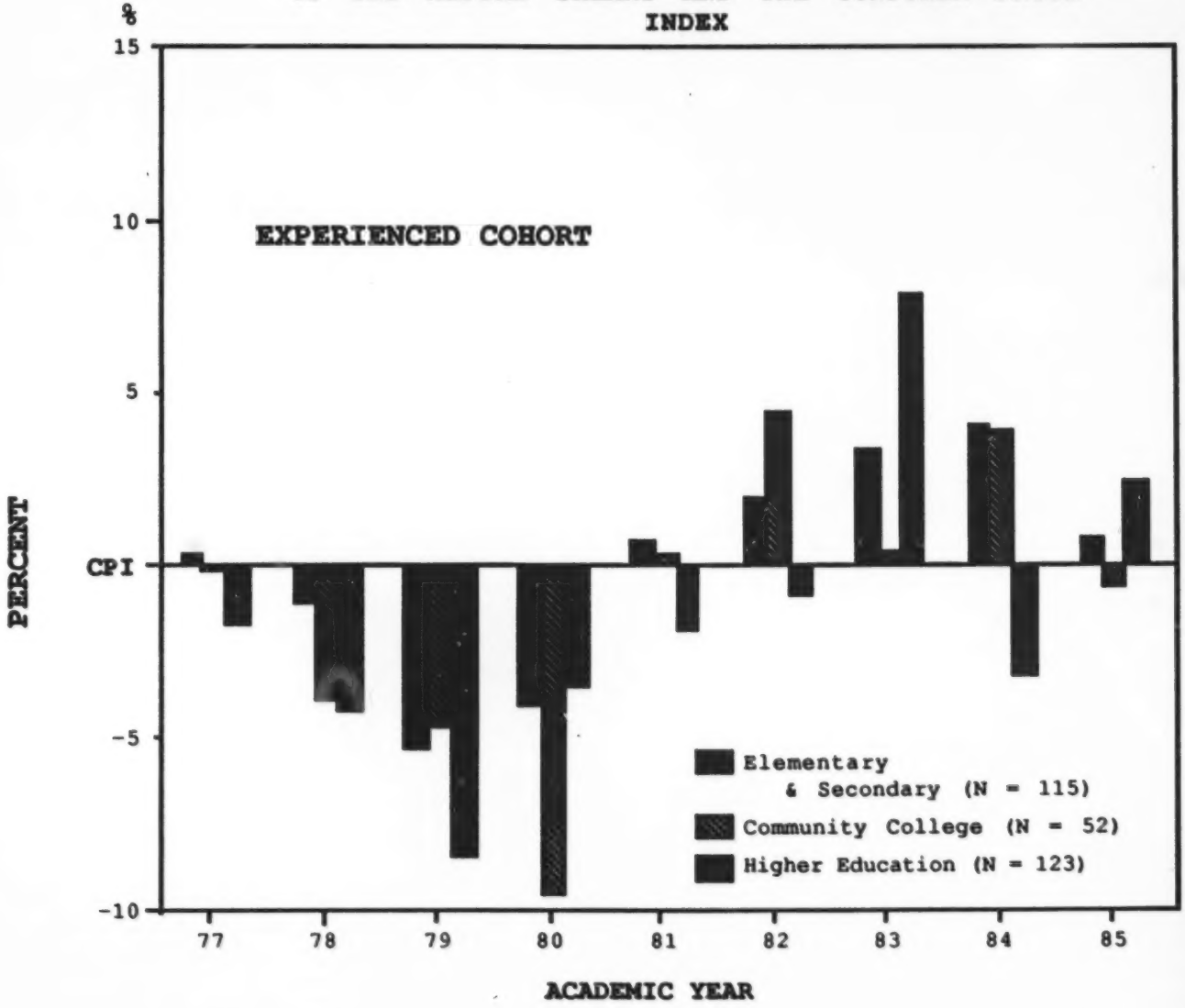
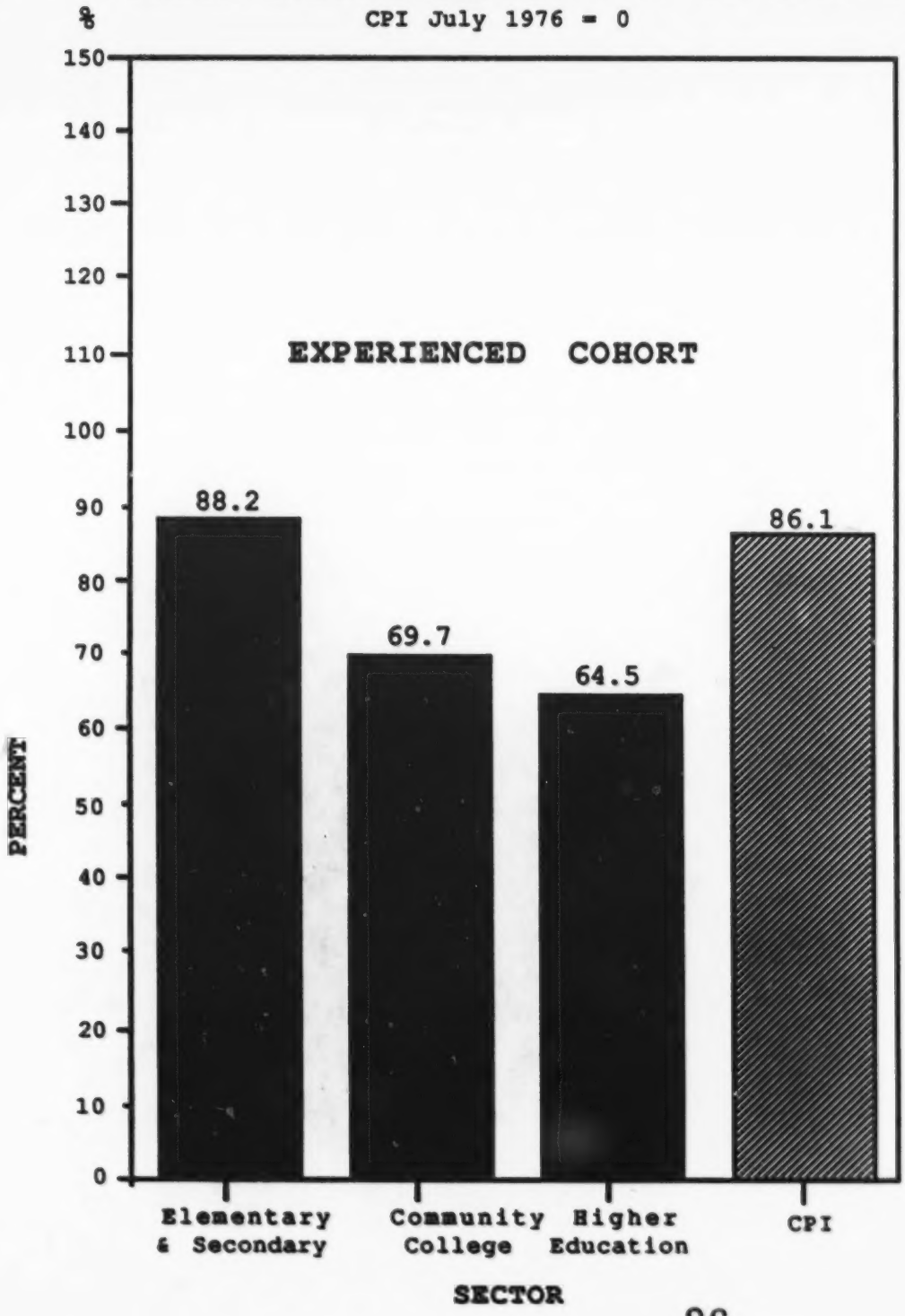


FIGURE 8

**PERCENTAGE INCREASE OF MEDIAN SALARIES OF OREGON TEACHERS AND THE CONSUMER PRICE INDEX FROM 1976-77 to 1985-86**



than increases in the PCPI for seven of the nine years.

When the annual increases in salary for each sector of the experienced cohort are totalled, it is apparent how the teachers have done in contrast to the growth rate of the PCPI. The rate of growth in the elementary and secondary experienced cohort was more than the community college teachers, State System teachers, and the PCPI for the ten year span. The median salary for the elementary and secondary experienced cohort increased by 88.2 percent while the PCPI increased 86.1 percent. The community college median salary increase was 69.7 percent and the State System median salary increase was 64.5 percent. Figure 8 shows the experienced cohort median salary increases compared to the PCPI for the ten year span of the study.

It was found that 41 percent of the sample of experienced cohort teachers from elementary and secondary schools received increases that exceeded the rate of inflation. In sharp contrast, 4 percent of the community college teachers and 5 percent of the State System teachers in the experienced cohort received salary increases greater than the Portland CPI.

## SUMMARY

In brief, this study sought 1) to examine the financial consequences of pursuing teaching as a profession at each level of schooling in Oregon and 2) to describe the progression of teacher salaries at the three levels over the last ten years for two selected cohorts of teachers. The results of this study are specific to these unique beginning and experienced cohorts of teachers.

### Beginning Cohort

In examining the financial consequences of pursuing teaching as a profession at each level of schooling in Oregon, the study revealed that the beginning cohort of elementary and secondary teachers began their teaching careers at a lower salary level than community college and State System teachers. In turn, beginning community college teachers received lower salaries than beginning State System teachers. Those differences can be explained by the differing levels of educational preparation generally required for job entry in each sector.

As was found in the previous study, the academic preparation of teachers in this study differed by educational sector. Generally, elementary and secondary teachers began their career with bachelor's degrees and at the end of the ten years of this study approximately 89 percent had either bachelor's plus hours or master's degrees. Over the ten year span of the study 21 percent of the teachers gained master's degrees. Most teachers in the community college beginning cohort had master's degrees prior to starting their careers, and this percentage has remained constant for the period of the study. In the sample selected from the State System of Higher Education, most teachers had

completed doctorates prior to 1976, and all but six teachers had earned this degree by 1985.

Regarding the progression of teachers' salaries during the ten years of this study, the salaries of elementary and secondary teachers in the beginning cohort increased by 125 percent, which is a gain of 45 percent above the increase in inflation. Community college teachers' salaries increased by 114 percent, representing a gain of 33 percent above the increase in inflation. During the same period of time, teachers in the sample from the State System of Higher Education experienced salary gains of 84 percent and fell 2 percent behind the increase in inflation. The Portland Consumer Price Index increased 86 percent during this time (refer to Figure 4).[6]

The study shows that despite substantial differences in academic training, community college teachers in the sample have received higher salaries than teachers in the State System since 1978-79. This finding validates precisely, based on different beginning cohorts, the earlier salary study's findings of community college teachers receiving higher median salaries than State System teachers beginning in 1978-79 inclusive.

Experienced Cohort

The study revealed that the experienced cohort of elementary and secondary teachers, like the beginning cohort, began their teaching careers with a lower salary than community college and State System teachers. Similarly, the experienced community college teachers received lower salaries than experienced State System teachers.

In this cohort, a majority of elementary and secondary teachers at their date of hire had bachelor's degrees or bachelor's plus hours and at the end of the ten years of this study 50 percent had bachelor's plus hours and the 50 percent possessed master's degrees. Most teachers in the community college experienced cohort had master's degrees on their date of hire, and this percentage increased by one percent for the period of the study. In the sample selected from the State System of Higher Education, most teachers had completed doctorates by their date of hire, and this remained constant for the ten years of this study.

Regarding the progression of teachers' salaries during the ten years of this study, the salaries of elementary and secondary teachers in the experienced cohort increased by 88 percent, which is a gain of 2 percent above the increase in inflation. Community college teacher salaries' increased by 69 percent, 19 percent

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[6] Percentage increase above or decrease below the rate of inflation is calculated by dividing the cohort percentage increase or decrease by the increase in the Portland CPI.

below the increase in inflation. During the same period of time, teachers in the sample from the State System of Higher Education experienced salary gains of 64 percent, or a 25 percent loss against the increase in inflation. The Portland Consumer Price Index increased 86 percent during this time (refer to Figure 8). These figures showed that community college and State System teachers' salaries for the experienced cohort lagged far behind the PCPI for this time period. In contrast, for the decade of the study, elementary and secondary school teachers in the experienced cohort received an overall salary increase greater than the PCPI.

Unlike the beginning cohort, the study showed that the experienced cohort of community college and State System teachers received similar median salaries for the time 1976-77 through 1985-86.

While there are intangible rewards specific to each educational sector, this study focused on salary remuneration. Consequently, this study portrayed these salaries in a relative manner and described the salary progression for each level of teaching. As mentioned in the previous study, "increases in salaries are often based on the premise that as employees acquire more training and experience they become more valuable to their organizations and should receive more pay."[7] Teachers in our study remained with their organizations ten years in the beginning cohort and at least twenty years in the experienced cohort. If additional experience and academic attainment are important considerations for salary determination, then salary gains above the rate of inflation should not be surprising.

The results of this study revealed that the elementary and secondary teachers in the beginning and experienced cohorts received salary increases above the rate of inflation. Community college teachers in the beginning cohort experienced salary increases above the rate of inflation; those in the experienced cohort, however, did not. State System of Higher Education teachers in both the beginning and experienced cohorts did not receive financial remuneration that kept pace with the rate of inflation.

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[7] Op. cit., Bogen, et. al.

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## APPENDIX A

### Disciplines Included in the Study

| Elementary & Secondary | Community College | State System of Higher Education |
|---|---|---|
| Self-Contained Classroom | Art | English |
| Language Arts | Language Arts | Art |
| Arts & Crafts | Visual Arts | Foreign Language |
| Foreign Languages | Mass Media | Drama |
| Music | English | Linguistics |
| Social Studies | Humanities | Music |
| Science | Social Sciences | Philosophy |
| Mathematics | History | Speech |
| Homemaking | Mathematics | Psychology |
| Health Education | Chemistry | Sociology |
| Physical Education | Geology | Political Science |
| | General Science | History |
| | Physics | Anthropology |
| | Home Economics | Economics |
| | Business | Computer Science |
| | Computer Science | Physics |
| | Physical Education | Zoology |
| | | Biology |
| | | Biochemistry-Biophysics |
| | | Mathematics |
| | | Education |
| | | Business |
| | | Physical Education |

APPENDIX A
(continued)

Disciplines Not Included in the Study as Not Comparable
Across Educational Sectors

| Elementary & Secondary | Community College | State System of Higher Education |
|---|---|---|
| Industrial Arts | Agricultural & Industrial Equipment Technology | Agriculture |
| Traffic Safety | Air Conditioning & Refrigeration | Engineering |
| Personal Finance | Automotive Mechanics | Forestry |
| Career Education | Electric-Electronic Technology | Health Sciences |
| Vocational Education | Engineering Technology | Law |
| Developmental Reading | Fire Protection Technology | Nursing |
| Mentally Retarded | Forest Technology | Oceanography |
| Blind or Visually Impaired | Industrial Technology | Pharmacy |
| Other Physical Handicapped | Machine Technology | Architecture |
| Emotionally Disturbed | Secretarial Training | Urban Planning |
| Culturally Disturbed | Welding | Social Work |
| Learning Disabled | | Veterinary Medicine |
| Audiovisual | | Law Enforcement |
| Curriculum Development | | Earth Science |
| Health Coordinator | | Medical Radiology |
| | | Medicine |

## APPENDIX B

**Numbers of Teachers Included in this Study by Institution for the Community College and State System Sectors**

### Beginning Cohort

| Community Colleges | | State System of Higher Education | |
|---|---|---|---|
| Blue Mountain | 2 | Eastern Oregon | 2 |
| Central Oregon | 2 | Oregon State | 13 |
| Chemeketa | 17 | Portland State | 6 |
| Clackamas | 3 | Southern Oregon | 3 |
| Clatsop | 1 | University of Oregon | 19 |
| Linn Benton | 3 | Western Oregon | 1 |
| Mt. Hood | 5 | | 44 |
| Portland | 4 | | |
| Rogue | 2 | | |
| Southwestern | 1 | | |
| Umpqua | 1 | | |
| | 41 | | |

### Experienced Cohort

| Community Colleges | | State System of Higher Education | |
|---|---|---|---|
| Blue Mountain | 4 | Eastern Oregon | 4 |
| Central Oregon | 4 | Oregon State | 26 |
| Clackamas | 1 | Portland State | 40 |
| Clatsop | 4 | Southern Oregon | 21 |
| Lane | 14 | University of Oregon | 26 |
| Mt. Hood | 3 | Western Oregon | 6 |
| Portland | 15 | | 123 |
| Southwest | 5 | | |
| Treasure Valley | 2 | | |
| | 52 | | |

APPENDIX C

Populations of Oregon Counties in 1984, and Numbers of Elementary & Secondary Teachers in the Study by Cohort

| County | Population | Numbers of Elementary and Secondary Teachers in the Study: Beginning Cohort | Numbers of Elementary and Secondary Teachers in the Study: Experienced Cohort |
|---|---|---|---|
| Baker | 16,000 | 0 | 0 |
| Benton | 68,500 | 4 | 3 |
| Clackamas | 246,300 | 16 | 10 |
| Clatsop | 32,900 | 2 | 2 |
| Columbia | 36,200 | 4 | 2 |
| Coos | 61,000 | 4 | 4 |
| Crook | 13,000 | 0 | 1 |
| Curry | 17,000 | 1 | 2 |
| Deschutes | 64,000 | 2 | 1 |
| Douglas | 91,400 | 11 | 5 |
| Gilliam | 1,950 | 0 | 0 |
| Grant | 8,050 | 0 | 0 |
| Harney | 7,250 | 0 | 0 |
| Hood River | 16,400 | 0 | 0 |
| Jackson | 135,100 | 9 | 8 |
| Jefferson | 12,200 | 0 | 3 |
| Josephine | 60,300 | 4 | 1 |
| Klamath | 58,200 | 4 | 2 |
| Lake | 7,600 | 1 | 0 |
| Lane | 268,500 | 13 | 12 |
| Lincoln | 37,300 | 1 | 1 |
| Linn | 89,900 | 2 | 1 |
| Malheur | 27,800 | 1 | 2 |
| Marion | 210,000 | 11 | 9 |
| Morrow | 7,500 | 0 | 0 |
| Multnomah | 562,300 | 13 | 28 |
| Polk | 45,000 | 2 | 2 |
| Sherman | 2,200 | 0 | 0 |
| Tillamook | 22,000 | 2 | 2 |
| Umatilla | 60,600 | 3 | 5 |
| Union | 24,800 | 0 | 1 |
| Wallowa | 7,500 | 1 | 0 |
| Wasco | 22,500 | 0 | 1 |
| Washington | 260,200 | 10 | 6 |
| Wheeler | 1,400 | 0 | 0 |
| Yamhill | 57,000 | 0 | 1 |
| Total | 2,660,000 | 121 | 115 |

## APPENDIX D

### Median Salaries

| | Elementary & Secondary | Community College | State System of Higher Education |
|---|---|---|---|
| **Beginning Cohort** | | | |
| 1976-77 | $11,389 | $13,753 | $14,500 |
| 1977-78 | $12,420 | $14,969 | $15,361 |
| 1978-79 | $13,744 | $16,454 | $15,968 |
| 1979-80 | $15,330 | $17,814 | $16,961 |
| 1980-81 | $17,124 | $19,656 | $18,819 |
| 1981-82 | $19,287 | $21,465 | $21,040 |
| 1982-83 | $20,840 | $23,436 | $21,606 |
| 1983-84 | $22,634 | $25,960 | $24,205 |
| 1984-85 | $24,130 | $27,847 | $24,292 |
| 1985-86 | $25,655 | $29,527 | $26,681 |
| **Experienced Cohort** | | | |
| 1976-77 | $15,365 | $18,259 | $19,346 |
| 1977-78 | $16,628 | $19,683 | $20,556 |
| 1978-79 | $18,147 | $20,927 | $21,795 |
| 1979-80 | $19,700 | $22,852 | $22,977 |
| 1980-81 | $21,000 | $23,102 | $24,609 |
| 1981-82 | $23,400 | $25,638 | $26,771 |
| 1982-83 | $24,810 | $27,822 | $27,632 |
| 1983-84 | $25,729 | $28,000 | $29,898 |
| 1984-85 | $27,605 | $30,000 | $29,904 |
| 1985-86 | $28,920 | $31,000 | $31,833 |